WE CLAIM:

1. A multi-layer thermoformable film comprising:

an outer layer comprising a blend of a very low density polyolefin, ethylene vinyl acetate, and a compatibilizer;

an intermediate layer comprising a mixture of nylon copolymer and an amorphous nylon;

an inner layer comprising a polyolefin or ionomeric polymer; and

at least one adhesive that bonds said outer, intermediate, and inner layers together.

2. The multi-layer thermoformable film of Claim 1, wherein the outer layer comprises a blend of:

about 30% to 50% by weight very low density polyolefin, based on the total weight of the outer layer;

about 30% to 45% by weight ethylene vinyl acetate, based on the total weight of the outer layer; and

about 10% to 24% by weight of a compatibilizer, based on the total weight of the outer layer.

3. The multi-layer thermoformable film of Claim 1, wherein the outer layer comprises a blend of:

about 44% by weight very low density polyolefin, based on the total weight of the outer layer;

about 36% by weight ethylene vinyl acetate, based on the total weight of the outer layer; and

about 15% by weight of a compatibilizer, based on the total weight of the outer layer.

4. The multi-layer thermoformable film of Claim 1, wherein said very low density polyolefin is an ethylene-octene copolymer.

5. The multi-layer thermoformable film of Claim 1, wherein said compatibilizer is an ethylene α-olefin copolymer having a density less than 0.900 with a MP range of 55-75°C.

6. The multi-layer thermoformable film of Claim 1, wherein said compatibilizer is Tafmer 1085.

7. The multi-layer thermoformable film of Claim 1, wherein the outer layer has a thickness of about 45 μm to 75 μm.

8. The multi-layer thermoformable film of Claim 1, wherein the outer layer has a thickness of about 52 μm to 63 μm.

9. The multi-layer thermoformable film of Claim 1, wherein the outer layer has a thickness of about 55 μm.

10. The multi-layer thermoformable film of Claim 1, further comprising a processing aid.

11. The multi-layer thermoformable film of Claim 10, wherein the processing aid comprises a fluroelastomer.

12. The multi-layer thermoformable film of Claim 10, wherein the outer layer comprises about 200 to 2000 ppm of a processing aid.

13. The multi-layer thermoformable film of Claim 12, wherein the outer layer comprises about 1200 ppm of a processing aid.

14. The multi-layer thermoformable film of Claim 1, wherein the intermediate layer comprises a mixture of nylon 6,66 and amorphous nylon.

15. The multi-layer thermoformable film of Claim 1, wherein the intermediate layer comprises:

about 75% to 92% by weight of nylon 6,66, based on the total weight of the intermediate layer; and

about 8% to 25% by weight of amorphous nylon, based on the total weight of the intermediate layer.

16. The multi-layer thermoformable film of Claim 1, wherein the intermediate layer comprises:

about 80% by weight of nylon 6,66, based on the total weight of the intermediate layer; and

about 20% by weight of amorphous nylon, based on the total weight of the intermediate layer.

17. The multi-layer thermoformable film of Claim 14, wherein nylon 6,66 is an 85/15 copolymer with the 85 being the nylon 6 component and having a Differential Scanning Calorimeter MP of 195-200°C.

18. The multi-layer thermoformable film of Claim 14, wherein the amorphous nylon is a nylon having no measurable MP as measured by Differential Scanning Calorimeter using ASTM 3417-83.

19. The amorphous nylon of Claim 14, wherein the amorphous nylon is Selar PA 3426.

20. The multi-layer thermoformable film of Claim 1, wherein the intermediate layer has a thickness of about 40 μm to 60 μm.

21. The multi-layer thermoformable film of Claim 1, wherein the intermediate layer has a thickness of about 45 μm to 55 μm.

22. The multi-layer thermoformable film of Claim 1, wherein the intermediate layer has a thickness of about 50 μm.

23. The multi-layer thermoformable film of Claim 1, wherein the inner layer comprises a zinc ionomer.

24. The multi-layer thermoformable film of Claim 1, wherein the inner layer comprises Surlyn 1650.

25. The multi-layer thermoformable film of Claim 1, wherein the inner layer comprises a sodium ionomer.

26. The multi-layer thermoformable film of Claim 1, wherein the inner layer comprises Surlyn 1601.

27. The multi-layer thermoformable film of Claim 1, wherein the inner layer comprises a metallocene catalyzed ethylene-olefin copolymer.

28. The multi-layer thermoformable film of Claim 1, wherein the inner layer comprises Affinity PL 1880.

29. The multi-layer thermoformable film of Claim 1, wherein the inner layer has a thickness of greater than about 35 μm.

30. The multi-layer thermoformable film of Claim 1, wherein the inner layer has a thickness of about 45 μm.

31. The multi-layer thermoformable film of Claim 1, wherein at least one adhesive comprises anhydride modified polyolefin or polyolefin copolymer.

32. The multi-layer thermoformable film of Claim 1, wherein at least one adhesive comprises Bynel 3095.

33. The multi-layer thermoformable film of Claim 1, wherein at least one adhesive has a thickness of about 5μm to 25 μm.

34. The multi-layer thermoformable film of Claim 1, wherein at least one adhesive has a thickness of about 10 μm to 20 μm.

35. The multi-layer thermoformable film of Claim 1, wherein at least one adhesive has a thickness of about 15 μm.